

Special Issue

Bismuth-Based Materials for Photochemical and Photoelectrochemical Energy and Environment Applications

Message from the Guest Editors

Our Special Issue is focused on recent developments in bismuth-based material, a promising class of semiconductor catalyst for energy and environment applications. Bismuth-based photocatalysts have demonstrated superior performance in photochemical and photoelectrochemical applications, such as water splitting, CO₂ reduction, C-N coupling, pollutant control, and organic chemical synthesis. The unique electronic and structural properties of bismuth-based materials make them a versatile platform for designing efficient and selective photocatalysts and photoelectrodes. This Special Issue aims to provide a comprehensive overview of recent advances in bismuth-based materials, including their fabrication, characterization, optical and electronic properties, and photochemical and photoelectrochemical applications. We hope this Special Issue will stimulate further research in the field of bismuth-based materials and promote their practical applications in energy and environmental-related areas.

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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